04/04/2007

ASARCO

James Lloyd
Environmental Science Specialist
Water Protection Bureau
Montana Department of Environmental Quality
P. O. Box 200901
Helena, Montana 59620-0901

April 6, 2007

Re: Update to Application for Montana Pollutant Discharge Elimination System (MPDES), Permit No. MT0030147, Asarco East Helena Plant

Dear Mr. Lloyd:

In March 2001, Asarco submitted a Montana Pollutant Discharge Elimination System (MPDES) permit renewal application for the East Helena Plant. Your statements given during the March 8, 2007 Compliance Evaluation Inspection of the East Helena Plant indicated that the Montana Department of Environmental Quality has not take any action on the renewal application. The information contained within the March 2001 renewal application reflected the historic operational status of the East Helena Plant. In April 2001, the East Helena Plant operations were indefinitely suspended. Asarco is updating the March 2001 permit renewal application to reflect the current operational status and condition of the East Helena Plant. The updated information for the East Helena Plant is provided in the following narrative and attached submittals.

1. Asarco maintains two outfalls that are governed by the MPDES program. The discharge from Permit Number MT-0030147 (Outfall 001) is associated with the East Helena Plant's facility operations while the discharge from Permit Number MTR000072 is associated with the East Helena Plant's storm water runoff containment facility. The March 2001 permit renewal application requested that Permit Number MTR000072 be terminated. Asarco herewith withdraws this request. In September 2006, Asarco submitted the necessary MPDES Storm Waster renewal application for the East Helena Plant. In November 2006, authorization was granted from the Montana Department of Environmental Quality to discharge under the *General Permit for Storm Water Discharge Associated with Industrial Activity, Authorization MTR000072.* The Permit and the authorization expire on September 30, 2011.

2. In April 2001, the Asarco East Helena Plant operations were indefinitely suspended. The suspended operating status dramatically improved the quality and significantly reduced the quantity of influent to the East Helena Plant water treatment facility. The information presented in this updated application best reflects the operational status during the indefinite suspension, with the exception of the information presented in attached EPA Form 3510-2C, Section V (pages V-1 through V-9).

3. The March 2001 permit renewal application presented both the High Density Sludge (HDS) and High Efficiency Reverse Osmosis (HERO) as viable water treatment process for the East Helena Plant. Based on the improved water quality of influent to the East Helena Plant water treatment

facility, the operation of the HERO system is not necessary to achieve MDEPS permit discharge limits. The HERO system has removed from the East Helena Plant's water treatment process.

4. With respect to EPA Form 3510-1, Asarco has updated the information previously submitted in March 2001 to reflect the current name of the facility, facility contract information, nature of business, and certification contact.

5. Pursuant to your March 8, 2007 Compliance Evaluation Inspection discussions, the information presented in attached EPA Form 3510-2C, Section V (pages V-1 through V-9) remains identical to the information presented in Asarco's March 2001 permit renewal application. Asarco is relying upon past sampling data for completing EPA Form 3512-2C. The analytical data from which EPA Form 3512-2C was prepared is contained in Asarco's March 2001 permit renewal submittal.

6. The attached water flow diagram has been updated to reflect the current water influents to the East Helena Plant water system and effluent from the East Helena Plant High Density Sludge (HDS) water treatment plant. Although the water flow diagram represents a precise illustration of the current system, the intermittent nature of the influents limit assigning accurate flow rates to the individual sources. The listed individual flow rates are Asarco best estimates. Since the indefinite suspension of the East Helena Plant operations, the effluent flow rate from the HDS water treatment plant averages between 10-15 gpm.

7. The attached site map has been updated to show the locations of the a) Outfall 001, b) Corrective Action Management Unit (CAMU), and c) sampling sites APSD-7, PPC-4, PPC-5, and PPC-6.

8. Asarco herewith reasserts the requests contained in its March 2001 permit renewal application relating to specific monitoring requirements associated with the current permit. First, the weekly HDS water treatment plant effluent monitoring at Outfall 001 should be modified from flow-proportional composite samples to grab samples. Second, the only source of ammonia to the HDS water treatment plant was the effluent from the Asarco East Helena Plant sanitary sewer treatment plant. The Asarco East Helena sanitary sewer treatment plant was shutdown in August 2003. Therefore, the weekly monitoring of ammonia (and associated pH and temperature) during the month of August at sample station PPC-6 should be eliminated. Third, the low flow conditions on Prickly Pear Creek have been verified with over ten years of monitoring. The flow monitoring immediately upstream of sample station PPC-5 should be eliminated.

If you should have any questions presented in this update to Asarco's March 2001 MPDES permit application, please feel free me at 227-4529.

Sincerely,

Jon Nickel

Enclosures EPA Form 3510-1
EPA Form 3510-2C
Location Map
Water Flow Diagram
HDS Water Treatment Plant View

Bcc: Blaine Cox (with all enclosures)
Tom Aldrich (with all enclosures)

Please print or type in the unshaded areas only.

Form Approved. OMB No. 2040-0086.

FORM 1 GENERAL

U.S. ENVIRONMENTAL PROTECTION AGENCY

GENERAL INFORMATION

Consolidated Permits Program

(Read the "General Instructions" before starting.)

I. EPA I.D. NUMBER: F MTD006230346 (T/A: ; C: D)

LABEL ITEMS
I. EPA I.D. NUMBER
III. FACILITY NAME
V. FACILITY MAILING ADDRESS
VI. FACILITY LOCATION

PLEASE PLACE LABEL IN THIS SPACE

GENERAL INSTRUCTIONS

If a preprinted label has been provided, affix it in the designated space. Review the information carefully; if any of it is incorrect, cross through it and enter the correct data in the appropriate fill-in area below. Also, if any of the preprinted data is absent *(the area to the left of the label space lists the information that should appear)*, please provide it in the proper fill-in area(s) below. If the label is complete and correct, you need not complete Items I, III, V, and VI *(except VI-B which must be completed regardless)*. Complete all items if no label has been provided. Refer to the instructions for detailed item descriptions and for the legal authorizations under which this data is collected.

II. POLLUTANT CHARACTERISTICS

INSTRUCTIONS: Complete A through J to determine whether you need to submit any permit application forms to the EPA. If you answer "yes" to any questions, you must submit this form and the supplemental form listed in the parenthesis following the question. Mark "X" in the box in the third column if the supplemental form is attached. If you answer "no" to each question, you need not submit any of these forms. You may answer "no" if your activity is excluded from permit requirements; see Section C of the instructions. See also, Section D of the instructions for definitions of **bold-faced terms**.

SPECIFIC QUESTIONS	Mark "X" YES	NO	FORM ATTACHED
A. Is this facility a **publicly owned treatment works** which results in a **discharge** to **waters of the U.S.**? (FORM 2A)		X	
B. Does or will this facility *(either existing or proposed)* include a **concentrated animal feeding operation** or **aquatic animal production facility** which results in a **discharge to waters of the U.S.**? (FORM 2B)		X	
C. Is this a facility which currently results in **discharges to waters of the U.S.** other than those described in A or B above? (FORM 2C)	X		X
D. Is this a proposed facility *(other than those described in A or B above)* which will result in a **discharge to waters of the U.S.**? (FORM 2D)		X	
E. Does or will this facility treat, store, or dispose of **hazardous wastes**? (FORM 3)		X	
F. Do you or will you inject at this facility industrial or municipal effluent below the lowermost stratum containing, within one quarter mile of the well bore, underground sources of drinking water? (FORM 4)		X	
G. Do you or will you inject at this facility any produced water or other fluids which are brought to the surface in connection with conventional oil or natural gas production, inject fluids used for enhanced recovery of oil or natural gas, or inject fluids for storage of liquid hydrocarbons? (FORM 4)		X	
H. Do you or will you inject at this facility fluids for special processes such as mining of sulfur by the Frasch process, solution mining of minerals, in situ combustion of fossil fuel, or recovery of geothermal energy? (FORM 4)		X	
I. *Is this facility a proposed* **stationary source** *which is one* of the 28 industrial categories listed in the instructions and which will potentially emit 100 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an attainment area? (FORM 5)		X	
J. *Is this facility a proposed* **stationary source** *which is* NOT one of the 28 industrial categories listed in the instructions and which will potentially emit 250 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an **attainment area**? (FORM 5)		X	

III. NAME OF FACILITY

1 SKIP: ASARCO LLC

IV. FACILITY CONTACT

A. NAME & TITLE *(last, first, & title)*: 2 Jon Nickel, Environmental Manager

B. PHONE *(area code & no.)*: (406) 227-4529

V. FACILTY MAILING ADDRESS

A. STREET OR P.O. BOX: 3 P. O. Box 1230

B. CITY OR TOWN: 4 East Helena

C. STATE: MT

D. ZIP CODE: 59635

VI. FACILITY LOCATION

A. STREET, ROUTE NO. OR OTHER SPECIFIC IDENTIFIER: 5 100 Smelter Avenue

B. COUNTY NAME: Lewis and Clark

C. CITY OR TOWN: 6 East Helena

D. STATE: MT

E. ZIP CODE: 59635

F. COUNTY CODE *(if known)*:

CONTINUE ON REVERSE

CONTINUED FROM THE FRONT

VII. SIC CODES *(4-digit, in order of priority)*

A. FIRST	B. SECOND
3339 (specify) Primary Smelting of Non-Ferrous Metals	(specify)
C. THIRD	**D. FOURTH**
(specify)	(specify)

VIII. OPERATOR INFORMATION

A. NAME: ASARCO LLC

B. Is the name listed in Item VIII-A also the owner? ☑ YES ☐ NO

C. STATUS OF OPERATOR *(Enter the appropriate letter into the answer box; if "Other," specify.)*

F = FEDERAL
S = STATE
P = PRIVATE
M = PUBLIC *(other than federal or state)*
O = OTHER *(specify)*

P (specify)

D. PHONE *(area code & no.)*: A (406) 227-4098

E. STREET OR P.O. BOX: P. O. Box 1230

F. CITY OR TOWN	G. STATE	H. ZIP CODE	IX. INDIAN LAND
East Helena	MT	59635	Is the facility located on Indian lands? ☐ YES ☑ NO

X. EXISTING ENVIRONMENTAL PERMITS

A. NPDES *(Discharges to Surface Water)*	D. PSD *(Air Emissions from Proposed Sources)*
9 N MT-0030147	9 P
B. UIC *(Underground Injection of Fluids)*	**E. OTHER** *(specify)*
9 U	9 MTR000072 (specify) General Storm Water
C. RCRA *(Hazardous Wastes)*	**E. OTHER** *(specify)*
9 R	9 2557-12 (specify) Air Quality Permit

XI. MAP

Attach to this application a topographic map of the area extending to at least one mile beyond property boundaries. The map must show the outline of the facility, the location of each of its existing and proposed intake and discharge structures, each of its hazardous waste treatment, storage, or disposal facilities, and each well where it injects fluids underground. Include all springs, rivers, and other surface water bodies in the map area. See instructions for precise requirements.

XII. NATURE OF BUSINESS *(provide a brief description)*

The facility operated as a custom primary lead smelter, which processed ore and concentrates. The facility produced lead bullion from a variety of both foreign and domestic concentrates, ores, fluxes, and other non-ferrous materials. The facility also produced co-products, which included sulfuric acid, silver, gold, and copper. In April 2001, the operations of the facility were indefinitely suspended.

XIII. CERTIFICATION *(see instructions)*

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this application and all attachments and that, based on my inquiry of those persons immediately responsible for obtaining the information contained in the application, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

A. NAME & OFFICIAL TITLE *(type or print)*	B. SIGNATURE	C. DATE SIGNED
Blaine Cox, Plant Manager	Blaine Cox	04/ 6/2007

COMMENTS FOR OFFICIAL USE ONLY

C

Please print or type in the unshaded areas only.

EPA I.D. NUMBER (*copy from Item 1 of Form 1*): MTD006230346

Form Approved.
OMB No. 2040-0086.
Approval expires 3-31-98.

FORM 2C NPDES

U.S. ENVIRONMENTAL PROTECTION AGENCY
APPLICATION FOR PERMIT TO DISCHARGE WASTEWATER
EXISTING MANUFACTURING, COMMERCIAL, MINING AND SILVICULTURE OPERATIONS
Consolidated Permits Program

I. OUTFALL LOCATION

For each outfall, list the latitude and longitude of its location to the nearest 15 seconds and the name of the receiving water.

A. OUTFALL NUMBER (*list*)	B. LATITUDE			C. LONGITUDE			D. RECEIVING WATER (*name*)
	1. DEG.	2. MIN.	3. SEC.	1. DEG.	2. MIN.	3. SEC.	
001	46	34	52	111	55	09	Prickly Pear Creek (Via Lower Lake)

II. FLOWS, SOURCES OF POLLUTION, AND TREATMENT TECHNOLOGIES

A. Attach a line drawing showing the water flow through the facility. Indicate sources of intake water, operations contributing wastewater to the effluent, and treatment units labeled to correspond to the more detailed descriptions in Item B. Construct a water balance on the line drawing by showing average flows between intakes, operations, treatment units, and outfalls. If a water balance cannot be determined (*e.g., for certain mining activities*), provide a pictorial description of the nature and amount of any sources of water and any collection or treatment measures.

B. For each outfall, provide a description of: (1) All operations contributing wastewater to the effluent, including process wastewater, sanitary wastewater, cooling water, and storm water runoff; (2) The average flow contributed by each operation; and (3) The treatment received by the wastewater. Continue on additional sheets if necessary.

1. OUTFALL NO. (*list*)	2. OPERATION(S) CONTRIBUTING FLOW		3. TREATMENT		
	a. OPERATION (*list*)	b. AVERAGE FLOW (*include units*)	a. DESCRIPTION	b. LIST CODES FROM TABLE 2C-1	
001	- Upper Lake Water	Annualized Average	High Density Sludge (HDS) Treatment Plant		
	- Groundwater Well Sample Water	10-15 Gallons per Minute	- Mixing	1-O	
	- CAMU Leak Detection and Leachate Collection		- Neutralization	2-K	
	- Lower Lake Make-Up Water		- Chemical Oxidation	2-B	
	- Storm Water Runoff		- Chemical Precipitation	2-C	
	- Groundwater Infiltration		- Flocculation	1-G	
	- Demolition Dust Suppression Water		- Sedimentation (Settling)	1-U	
	- Groundwater Pump/Treat Water		- Multimedia Filtration	1-Q	
	- City Water		- Discharge to Surface Water	4-A	
			- Pressure Filtration (Solids	5-R	

OFFICIAL USE ONLY (*effluent guidelines sub-categories*)

CONTINUED FROM THE FRONT

C. Except for storm runoff, leaks, or spills, are any of the discharges described in Items II-A or B intermittent or seasonal?

☑ YES (*complete the following table*) ☐ NO (*go to Section III*)

1. OUTFALL NUMBER (*list*)	2. OPERATION(s) CONTRIBUTING FLOW (*list*)	3. FREQUENCY a. DAYS PER WEEK (*specify average*)	3. FREQUENCY b. MONTHS PER YEAR (*specify average*)	4. FLOW A. FLOW RATE (*in mgd*) 1. LONG TERM AVERAGE	4. FLOW A. FLOW RATE (*in mgd*) 2. MAXIMUM DAILY	4. FLOW B. TOTAL VOLUME (*specify with units*) 1. LONG TERM AVERAGE	4. FLOW B. TOTAL VOLUME (*specify with units*) 2. MAXIMUM DAILY	4. FLOW C. DURATION (*in days*)
001	Plant Water, including all categories except groundwater capture	7	12	10-15 gpm	110 gpm	7 mgy	160,000 gallons	365
001	Plant Water, including all categories and groundwater capture	7	12	110 gpm	110 gpm	60 mgy	160,000 gallons	365

III. PRODUCTION

A. Does an effluent guideline limitation promulgated by EPA under Section 304 of the Clean Water Act apply to your facility?

☑ YES (*complete Item III-B*) ☐ NO (*go to Section IV*)

B. Are the limitations in the applicable effluent guideline expressed in terms of production (*or other measure of operation*)?

☑ YES (*complete Item III-C*) ☐ NO (*go to Section IV*)

C. If you answered "yes" to Item III-B, list the quantity which represents an actual measurement of your level of production, expressed in the terms and units used in the applicable effluent guideline, and indicate the affected outfalls.

1. AVERAGE DAILY PRODUCTION a. QUANTITY PER DAY	b. UNITS OF MEASURE	c. OPERATION, PRODUCT, MATERIAL, ETC. (*specify*)	2. AFFECTED OUTFALLS (*list outfall numbers*)
185	Tons Per Day	Lead Bullion (Year 2000 Production)	001
0	Tons Per Day	Lead Bullion (Year 2006 Production)	001
230	Tons Per Day	93% Sulfuric Acid (Year 2000 Production)	001
0	Tons Per Day	93% Sulfuric Acid (Year 2006 Production)	001

IV. IMPROVEMENTS

A. Are you now required by any Federal, State or local authority to meet any implementation schedule for the construction, upgrading or operations of wastewater treatment equipment or practices or any other environmental programs which may affect the discharges described in this application? This includes, but is not limited to, permit conditions, administrative or enforcement orders, enforcement compliance schedule letters, stipulations, court orders, and grant or loan conditions.

☐ YES (*complete the following table*) ☑ NO (*go to Item IV-B*)

1. IDENTIFICATION OF CONDITION, AGREEMENT, ETC.	2. AFFECTED OUTFALLS a. NO.	2. AFFECTED OUTFALLS b. SOURCE OF DISCHARGE	3. BRIEF DESCRIPTION OF PROJECT	4. FINAL COMPLIANCE DATE a. REQUIRED	4. FINAL COMPLIANCE DATE b. PROJECTED

B. OPTIONAL: You may attach additional sheets describing any additional water pollution control programs (*or other environmental projects which may affect your discharges*) you now have underway or which you plan. Indicate whether each program is now underway or planned, and indicate your actual or planned schedules for construction.

☐ MARK "X" IF DESCRIPTION OF ADDITIONAL CONTROL PROGRAMS IS ATTACHED

EPA I.D. NUMBER (*copy from Item 1 of Form 1*)

MTD006230346

CONTINUED FROM PAGE 2

V. INTAKE AND EFFLUENT CHARACTERISTICS

A, B, & C: See instructions before proceeding – Complete one set of tables for each outfall – Annotate the outfall number in the space provided. NOTE: Tables V-A, V-B, and V-C are included on separate sheets numbered V-1 through V-9.

D. Use the space below to list any of the pollutants listed in Table 2c-3 of the instructions, which you know or have reason to believe is discharged or may be discharged from any outfall. For every pollutant you list, briefly describe the reasons you believe it to be present and report any analytical data in your possession.

1. POLLUTANT	2. SOURCE	1. POLLUTANT	2. SOURCE
None			

VI. POTENTIAL DISCHARGES NOT COVERED BY ANALYSIS

Is any pollutant listed in Item V-C a substance or a component of a substance which you currently use or manufacture as an intermediate or final product or byproduct?

☑ YES (*list all such pollutants below*) ☐ NO (*go to Item VI-B*)

Lead - Final Product

Silver, Copper - Byproducts

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VII. BIOLOGICAL TOXICITY TESTING DATA

Do you have any knowledge or reason to believe that any biological test for acute or chronic toxicity has been made on any of your discharges or on a receiving water in relation to your discharge within the last 3 years?

☐ YES (*identify the test(s) and describe their purposes below*) ☑ NO (*go to Section VIII*)

No biological testing has occurred within the past nine years at the outfall or receiving water.

VIII. CONTRACT ANALYSIS INFORMATION

Were any of the analyses reported in Item V performed by a contract laboratory or consulting firm?

☑ YES (*list the name, address, and telephone number of, and pollutants analyzed by, each such laboratory or firm below*) ☐ NO (*go to Section IX*)

A. NAME	B. ADDRESS	C. TELEPHONE (*area code & no.*)	D. POLLUTANTS ANALYZED (*list*)
Alpine Analytical, Inc.	1315 Cherry Avenue Helena, Montana 59601	(406) 449-6282	All Permit Parameters
Energy Laboratories, Inc.	3161 E. Lyndale Avenue Helena, Montana 59604	(406) 442-0711	All Permit Parameters

IX. CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

A. NAME & OFFICIAL TITLE (*type or print*)	B. PHONE NO. (*area code & no.*)
Blaine Cox, Plant Manager	(406) 227-4098
C. SIGNATURE	D. DATE SIGNED
	04/ 6/2007

PLEASE PRINT OR TYPE IN THE UNSHADED AREAS ONLY. You may report some or all of this information on separate sheets (*use the same format*) instead of completing these pages.
SEE INSTRUCTIONS.

EPA I.D. NUMBER (*copy from Item 1 of Form 1*): MTD006230346

V. INTAKE AND EFFLUENT CHARACTERISTICS *(continued from page 3 of Form 2-C)*

OUTFALL NO. 001

PART A –You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details.

1. POLLUTANT	2. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	a. MAXIMUM DAILY VALUE (2) MASS	b. MAXIMUM 30 DAY VALUE (*if available*) (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE (*if available*) (2) MASS	c. LONG TERM AVRG. VALUE (*if available*) (1) CONCENTRATION	c. LONG TERM AVRG. VALUE (*if available*) (2) MASS	d. NO. OF ANALYSES	3. UNITS (*specify if blank*) a. CONCEN-TRATION	3. UNITS b. MASS	4. INTAKE (*optional*) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	a. LONG TERM AVERAGE VALUE (2) MASS	4. INTAKE b. NO. OF ANALYSES
a. Biochemical Oxygen Demand (*BOD*)	220	147	102	92.1	62.8	43.2	4	ppm	lbs/dy			
b. Chemical Oxygen Demand (*COD*)	440	297	204	184	132	90.6	4	ppm	lbs/dy			
c. Total Organic Carbon (*TOC*)	111	74	NA	NA	NA	NA	1	ppm	lbs/dy			
d. Total Suspended Solids (*TSS*)	4.0	2.7	9.0	8.16	5.3	3.7	52	ppm	lbs/dy			
e. Ammonia (*as N*)	14.0	9.4	47.0	42.4	21.8	15.0	4	ppm	lbs/dy			
f. Flow	VALUE 55.8		VALUE 92.0		VALUE 57.4		365	gpm	-	VALUE		
g. Temperature (*winter*)	VALUE 19.0-25.0		VALUE 19.0-25-0		VALUE 19.0-25.0		365	°C		VALUE		
h. Temperature (*summer*)	VALUE 23.0-28.0		VALUE 23.0-28.0		VALUE 23.0-28.0		365	°C		VALUE		
i. pH	MINIMUM 6.1	MAXIMUM 8.9	MINIMUM 6.1	MAXIMUM 8.9			365+	STANDARD UNITS				

PART B – Mark "X" in column 2-a for each pollutant you know or have reason to believe is present. Mark "X" in column 2-b for each pollutant you believe to be absent. If you mark column 2a for any pollutant which is limited either directly, or indirectly but expressly, in an effluent limitations guideline, you must provide the results of at least one analysis for that pollutant. For other pollutants for which you mark column 2a, you must provide quantitative data or an explanation of their presence in your discharge. Complete one table for each outfall. See the instructions for additional details and requirements.

1. POLLUTANT AND CAS NO. (*if available*)	2. MARK "X" a. BELIEVED PRESENT	2. MARK "X" b. BELIEVED ABSENT	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	a. MAXIMUM DAILY VALUE (2) MASS	b. MAXIMUM 30 DAY VALUE (*if available*) (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE (*if available*) (2) MASS	c. LONG TERM AVRG. VALUE (*if available*) (1) CONCENTRATION	c. LONG TERM AVRG. VALUE (*if available*) (2) MASS	d. NO. OF ANALYSES	4. UNITS a. CONCEN-TRATION	4. UNITS b. MASS	5. INTAKE (*optional*) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	a. LONG TERM AVERAGE VALUE (2) MASS	5. INTAKE b. NO. OF ANALYSES
a. Bromide (24959-67-9)	X		308	206	NA	NA	NA	NA	1	ppm	lb/dy			
b. Chlorine, Total Residual		X	<0.05	0.033	NA	NA	NA	NA	1	ppm	lb/dy			
c. Color	X		45	NA	NA	NA	NA	NA	1	cl.units	-			
d. Fecal Coliform		X	<1.0	NA	NA	NA	NA	NA	1	cl/100ml	-			
e. Fluoride (16984-48-8)	X		15	10	NA	NA	NA	NA	1	ppm	lb/dy			
f. Nitrate-Nitrite (as *N*)	X		1.1	0.74	NA	NA	NA	NA	1	ppm	lb/dy			

ITEM V-B CONTINUED FROM FRONT

1. POLLUTANT AND CAS NO. (if available)	2. MARK "X"		3. EFFLUENT							4. UNITS		5. INTAKE (optional)		
	a. BELIEVED PRESENT	b. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (if available)		c. LONG TERM AVRG. VALUE (if available)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
			(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
g. Nitrogen, Total Organic (as N)	X		33	22	NA	NA	NA	NA	1	ppm	lb/dy			
h. Oil and Grease	X		8.6	5.8	NA	NA	NA	NA	1	ppm	lb/dy			
i. Phosphorus (as P), Total (7723-14-0)		X	<0.01	0.067	0.20	0.15	0.08	0.06	4	ppm	lb/dy			
j. Radioactivity														
(1) Alpha, Total		X	<7.3	NA	NA	NA	NA	NA	1	pCi/l	-			
(2) Beta, Total		X	<25.5	NA	NA	NA	NA	NA	1	pCi/l	-			
(3) Radium, Total		X	<1.0	NA	NA	NA	NA	NA	1	pCi/l	-			
(4) Radium 226, Total		X	<0.2	NA	NA	NA	NA	NA	1	pCi/l	-			
k. Sulfate (as SO_4) (14808-79-8)	X		1900	1272	NA	NA	NA	NA	1	ppm	lb/dy			
l. Sulfide (as S)		X	<0.04	0.027	NA	NA	NA	NA	1	ppm	lb/dy			
m. Sulfite (as SO_3) (14265-45-3)	X		41	27.5	NA	NA	NA	NA	1	ppm	lb/dy			
n. Surfactants	X		17	11.4	NA	NA	NA	NA	1	ppm	lb/dy			
o. Aluminum, Total (7429-90-5)	X		0.032	0.021	0.72	0.53	0.203	0.139	4	ppm	lb/dy			
p. Barium, Total (7440-39-3)	X		0.10	0.067	NA	NA	NA	NA	1	ppm	lb/dy			
q. Boron, Total (7440-42-8)	X		1.2	0.804	NA	NA	NA	NA	1	ppm	lb/dy			
r. Cobalt, Total (7440-48-4)		X	<0.01	0.0067	NA	NA	NA	NA	1	ppm	lb/dy			
s. Iron, Total (7439-89-6)	X		0.54	0.362	0.49	0.433	0.24	0.17	52	ppm	lb/dy			
t. Magnesium, Total (7439-95-4)	X		1.2	0.804	NA	NA	NA	NA	1	ppm	lb/dy			
u. Molybdenum, Total (7439-98-7)	X		0.034	0.023	NA	NA	NA	NA	1	ppm	lb/dy			
v. Manganese, Total (7439-96-5)		X	<0.01	0.0067	0.016	0.009	0.01	0.007	12	ppm	lb/dy			
w. Tin, Total (7440-31-5)		X	<0.10	0.067	NA	NA	NA	NA	1	ppm	lb/dy			
x. Titanium, Total (7440-32-6)	X		0.16	0.107	NA	NA	NA	NA	1	ppm	lb/dy			

EPA I.D. NUMBER (*copy from Item 1 of Form 1*)	OUTFALL NUMBER
MTD006230346	001

CONTINUED FROM PAGE 3 OF FORM 2-C

PART C - If you are a primary industry and this outfall contains process wastewater, refer to Table 2c-2 in the instructions to determine which of the GC/MS fractions you must test for. Mark "X" in column 2-a for all such GC/MS fractions that apply to your industry and for ALL toxic metals, cyanides, and total phenols. If you are not required to mark column 2-a (*secondary industries, nonprocess wastewater outfalls, and nonrequired GC/MS fractions*), mark "X" in column 2-b for each pollutant you know or have reason to believe is present. Mark "X" in column 2-c for each pollutant you believe is absent. If you mark column 2a for any pollutant, you must provide the results of at least one analysis for that pollutant. If you mark column 2b for any pollutant, you must provide the results of at least one analysis for that pollutant if you know or have reason to believe it will be discharged in concentrations of 10 ppb or greater. If you mark column 2b for acrolein, acrylonitrile, 2,4 dinitrophenol, or 2-methyl-4, 6 dinitrophenol, you must provide the results of at least one analysis for each of these pollutants which you know or have reason to believe that you discharge in concentrations of 100 ppb or greater. Otherwise, for pollutants for which you mark column 2b, you must either submit at least one analysis or briefly describe the reasons the pollutant is expected to be discharged. Note that there are 7 pages to this part; please review each carefully. Complete one table (*all 7 pages*) for each outfall. See instructions for additional details and requirements.

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCEN-TRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
METALS, CYANIDE, AND TOTAL PHENOLS															
1M. Antimony, Total (7440-36-0)	X	X		2.5	1.7	10.1	8.59	3.72	2.56	52	ppm	lb/day			
2M. Arsenic, Total (7440-38-2)	X	X		0.21	0.141	0.51	0.452	0.121	0.083	52	ppm	lb/day			
3M. Beryllium, Total (7440-41-7)	X		X	<0.005	0.0033	NA	NA	NA	NA	1	ppm	lb/day			
4M. Cadmium, Total (7440-43-9)	X		X	<0.001	0.0007	0.006	0.004	0.001	.0007	52	ppm	lb/day			
5M. Chromium, Total (7440-47-3)	X		X	<0.01	0.007	NA	NA	NA	NA	1	ppm	lb/day			
6M. Copper, Total (7440-50-8)	X	X		0.012	0.008	0.10	0.091	0.037	0.025	52	ppm	lb/day			
7M. Lead, Total (7439-92-1)	X	X		0.063	0.042	0.007	0.005	0.0025	.0017	52	ppm	lb/day			
8M. Mercury, Total (7439-97-6)	X	X		0.0016	0.0011	0.00098	.00082	0.0003	.0002	52	ppm	lb/day			
9M. Nickel, Total (7440-02-0)	X		X	<0.01	0.0067	NA	NA	NA	NA	1	ppm	lb/day			
10M. Selenium, Total (7782-49-2)	X	X		0.85	0.569	2.4	2.11	1.10	0.75	52	ppm	lb/day			
11M. Silver, Total (7440-22-4)	X	X		0.018	0.012	0.005	0.0045	0.005	0.003	4	ppm	lb/day			
12M. Thallium, Total (7440-28-0)	X	X		0.65	0.435	1.1	3.45	1.11	0.76	52	ppm	lb/day			
13M. Zinc, Total (7440-66-6)	X	X		0.022	0.015	0.52	0.283	0.093	0.064	52	ppm	lb/day			
14M. Cyanide, Total (57-12-5)	X		X	<0.008	0.0054	NA	NA	NA	NA	1	ppm	lb/day			
15M. Phenols, Total	X	X		2.5-49.0	NA	NA	NA	NA	NA	2	ppm	-			
DIOXIN															
2,3,7,8-Tetra-chlorodibenzo-P-Dioxin (1764-01-6)	X		X	DESCRIBE RESULTS											

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCEN-TRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – VOLATILE COMPOUNDS															
1V. Accrolein (107-02-8)	X		X												
2V. Acrylonitrile (107-13-1)	X		X												
3V. Benzene (71-43-2)	X		X												
4V. Bis (*Chloro-methyl*) Ether (542-88-1)	X		X												
5V. Bromoform (75-25-2)	X		X												
6V. Carbon Tetrachloride (56-23-5)	X		X												
7V. Chlorobenzene (108-90-7)	X		X												
8V. Chlorodi-bromomethane (124-48-1)	X		X												
9V. Chloroethane (75-00-3)	X		X												
10V. 2-Chloro-ethylvinyl Ether (110-75-8)	X		X												
11V. Chloroform (67-66-3)	X		X												
12V. Dichloro-bromomethane (75-27-4)	X		X												
13V. Dichloro-difluoromethane (75-71-8)	X		X												
14V. 1,1-Dichloro-ethane (75-34-3)	X		X												
15V. 1,2-Dichloro-ethane (107-06-2)	X		X												
16V. 1,1-Dichloro-ethylene (75-35-4)	X		X												
17V. 1,2-Dichloro-propane (78-87-5)	X		X												
18V. 1,3-Dichloro-propylene (542-75-6)	X		X												
19V. Ethylbenzene (100-41-4)	X		X												
20V. Methyl Bromide (74-83-9)	X		X												
21V. Methyl Chloride (74-87-3)	X		X												

CONTINUED FROM PAGE V-4

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – VOLATILE COMPOUNDS (*continued*)															
22V. Methylene Chloride (75-09-2)	X		X												
23V. 1,1,2,2-Tetrachloroethane (79-34-5)	X		X												
24V. Tetrachloroethylene (127-18-4)	X		X												
25V. Toluene (108-88-3)	X		X												
26V. 1,2-Trans-Dichloroethylene (156-60-5)	X		X												
27V. 1,1,1-Trichloroethane (71-55-6)	X		X												
28V. 1,1,2-Trichloroethane (79-00-5)	X		X												
29V Trichloroethylene (79-01-6)	X		X												
30V. Trichlorofluoromethane (75-69-4)	X		X												
31V. Vinyl Chloride (75-01-4)	X		X												
GC/MS FRACTION – ACID COMPOUNDS															
1A. 2-Chlorophenol (95-57-8)	X		X												
2A. 2,4-Dichlorophenol (120-83-2)	X		X												
3A. 2,4-Dimethylphenol (105-67-9)	X	X		106	NA	NA	NA	NA	NA	1	ppb	-			
4A. 4,6-Dinitro-O-Cresol (534-52-1)	X		X												
5A. 2,4-Dinitrophenol (51-28-5)	X		X												
6A. 2-Nitrophenol (88-75-5)	X		X												
7A. 4-Nitrophenol (100-02-7)	X		X												
8A. P-Chloro-M-Cresol (59-50-7)	X		X												
9A. Pentachlorophenol (87-86-5)	X		X												
10A. Phenol (108-95-2)	X	X		2.5-49.0	NA	NA	NA	NA	NA	2	ppm	-			
11A. 2,4,6-Trichlorophenol (88-05-2)	X		X												

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – BASE/NEUTRAL COMPOUNDS															
1B. Acenaphthene (83-32-9)	X		X												
2B. Acenaphtylene (208-96-8)	X		X												
3B. Anthracene (120-12-7)	X		X												
4B. Benzidine (92-87-5)	X		X												
5B. Benzo (*a*) Anthracene (56-55-3)	X		X												
6B. Benzo (*a*) Pyrene (50-32-8)	X		X												
7B. 3,4-Benzo-fluoranthene (205-99-2)	X		X												
8B. Benzo (*ghi*) Perylene (191-24-2)	X		X												
9B. Benzo (*k*) Fluoranthene (207-08-9)	X		X												
10B. Bis (*2-Chloro-ethoxy*) Methane (111-91-1)	X		X												
11B. Bis (*2-Chloro-ethyl*) Ether (111-44-4)	X		X												
12B. Bis (*2-Chloroisopropyl*) Ether (102-80-1)	X		X												
13B. Bis (*2-Ethyl-hexyl*) Phthalate (117-81-7)	X	X		22	NA	NA	NA	NA	NA	1	ppb	-			
14B. 4-Bromophenyl Phenyl Ether (101-55-3)	X		X												
15B. Butyl Benzyl Phthalate (85-68-7)	X		X												
16B. 2-Chloro-naphthalene (91-58-7)	X		X												
17B. 4-Chloro-phenyl Phenyl Ether (7005-72-3)	X		X												
18B. Chrysene (218-01-9)	X		X												
19B. Dibenzo (*a,h*) Anthracene (53-70-3)	X		X												
20B. 1,2-Dichloro-benzene (95-50-1)	X		X												
21B. 1,3-Di-chloro-benzene (541-73-1)	X		X												

CONTINUED FROM PAGE V-6

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – BASE/NEUTRAL COMPOUNDS (*continued*)															
22B. 1,4-Dichlorobenzene (106-46-7)	X		X												
23B. 3,3-Dichlorobenzidine (91-94-1)	X		X												
24B. Diethyl Phthalate (84-66-2)	X		X												
25B. Dimethyl Phthalate (131-11-3)	X		X												
26B. Di-N-Butyl Phthalate (84-74-2)	X		X												
27B. 2,4-Dinitrotoluene (121-14-2)	X		X												
28B. 2,6-Dinitrotoluene (606-20-2)	X		X												
29B. Di-N-Octyl Phthalate (117-84-0)	X		X												
30B. 1,2-Diphenylhydrazine (*as Azobenzene*) (122-66-7)	X		X												
31B. Fluoranthene (206-44-0)	X		X												
32B. Fluorene (86-73-7)	X		X												
33B. Hexachlorobenzene (118-74-1)	X		X												
34B. Hexachlorobutadiene (87-68-3)	X		X												
35B. Hexachlorocyclopentadiene (77-47-4)	X		X												
36B Hexachloroethane (67-72-1)	X		X												
37B. Indeno (1,2,3-cd) Pyrene (193-39-5)	X		X												
38B. Isophorone (78-59-1)	X	X		17	NA	NA	NA	NA	NA	1	ppb	-			
39B. Naphthalene (91-20-3)	X		X												
40B. Nitrobenzene (98-95 3)	X		X												
41B. N-Nitrosodimethylamine (62-75-9)	X		X												
42B. N-Nitrosodi-N-Propylamine (621-64-7)	X		X												

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – BASE/NEUTRAL COMPOUNDS (*continued*)															
43B. N-Nitrosodiphenylamine (86-30-6)	X		X												
44B. Phenanthrene (85-01-8)	X		X												
45B. Pyrene (129-00-0)	X		X												
46B. 1,2,4-Trichlorobenzene (120-82-1)	X		X												
GC/MS FRACTION – PESTICIDES															
1P. Aldrin (309-00-2)	X		X												
2P. α-BHC (319-84-6)	X		X												
3P. β-BHC (319-85-7)	X		X												
4P. γ-BHC (58-89-9)	X		X												
5P. δ-BHC (319-86-8)	X		X												
6P. Chlordane (57-74-9)	X		X												
7P. 4,4'-DDT (50-29-3)	X		X												
8P. 4,4'-DDE (72-55-9)	X		X												
9P. 4,4'-DDD (72-54-8)	X		X												
10P. Dieldrin (60-57-1)	X		X												
11P. α-Enosulfan (115-29-7)	X		X												
12P. β-Endosulfan (115-29-7)	X		X												
13P. Endosulfan Sulfate (1031-07-8)	X		X												
14P. Endrin (72-20-8)	X		X												
15P. Endrin Aldehyde (7421-93-4)	X		X												
16P. Heptachlor (76-44-8)	X		X												

EPA I.D. NUMBER (*copy from Item 1 of Form 1*)	OUTFALL NUMBER
MTD006230346	001

CONTINUED FROM PAGE V-8

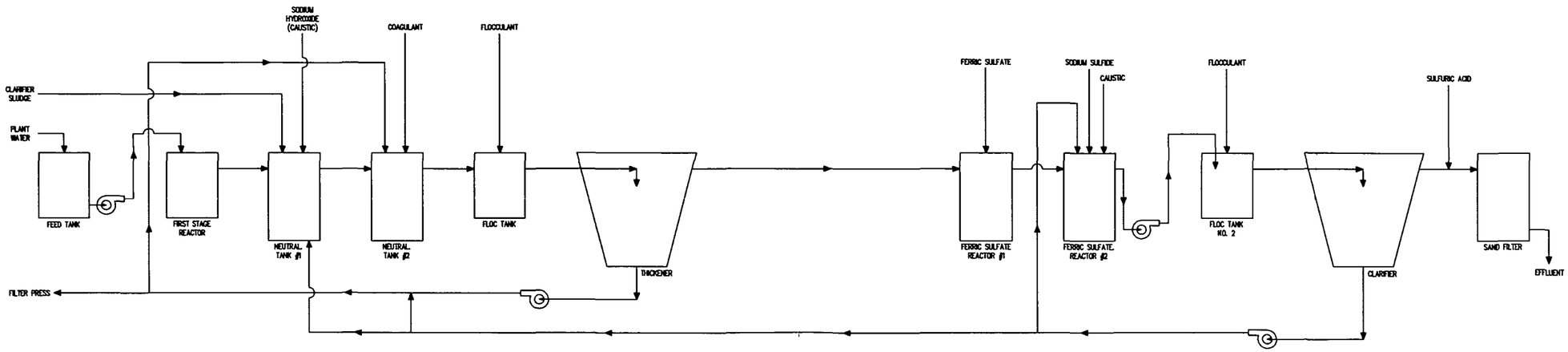
1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – PESTICIDES (*continued*)															
17P. Heptachlor Epoxide (1024-57-3)	X		X												
18P. PCB-1242 (53469-21-9)	X		X												
19P. PCB-1254 (11097-69-1)	X		X												
20P. PCB-1221 (11104-28-2)	X		X												
21P. PCB-1232 (11141-16-5)	X		X												
22P. PCB-1248 (12672-29-6)	X		X												
23P. PCB-1260 (11096-82-5)	X		X												
24P. PCB-1016 (12674-11-2)	X		X												
25P. Toxaphene (8001-35-2)	X		X												

MPDES PERMIT RENEWAL
(MARCH 2007)

LOCATION MAP

FIGURE
1

HDS WATER TREATMENT PLANT
CURRENT SYSTEM



REFERENCES	DWG. NO.	TITLE
		DRAWING REFERENCE LIST

REFERENCES	DWG. NO.	TITLE

REVISIONS	NO.	BY	DATE	DESCRIPTION
	1			
	2			
	3			
	4			
	5			

REVISIONS	NO.	BY	DATE	DESCRIPTION
	1			
	2			
	3			
	4			
	5			

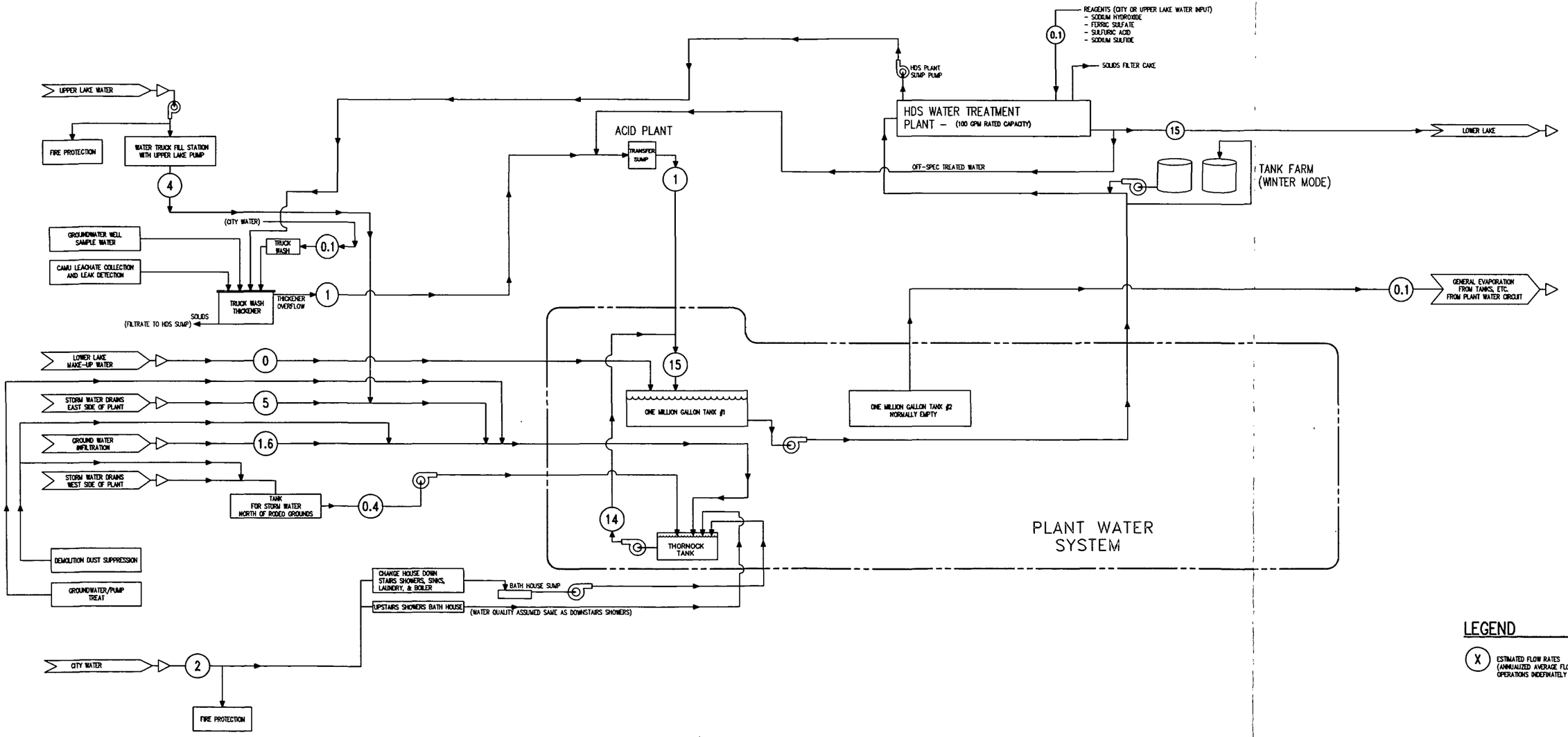
PRELIMINARY	
REVISED—DESTROY PREVIOUS ISSUE	
RELEASED FOR CONSTRUCTION	
ISSUED BY	
DATE	

SCALE	NONE	
DRAWN BY	LT	1/5/07
CHECKED BY		
APPROVED		

ASARCO Incorporated
EAST HELENA PLANT
EAST HELENA MONTANA, 59635

HDS WATER TREATMENT PLANT
CURRENT SYSTEM

R.V. APPROP. NO.	PLANT NO.
ASARCO	
DRAWING NUMBER	REV.
80-1-10044	1



LEGEND

(X) ESTIMATED FLOW RATES (ANNUALIZED AVERAGE FLOW RATE WITH OPERATIONS INDEFINATELY SUSPENDED)

REFERENCES

DWG. NO.	TITLE
	DRAWING REFERENCE LIST
SK3-1-91	WATER FLOW DIAGRAM DDS

REFERENCES

DWG. NO.	TITLE

REVISIONS

NO.	BY	DATE	DESCRIPTION

REVISIONS

NO.	BY	DATE	DESCRIPTION
3	LT	3-20-07	UPDATED PROCESS
2	RLK	3-16-01	ADDED HERO PLANT
1	DRT	10/14/98	GENERAL NOTES MODIFICATION

PRELIMINARY	
REVISED--DESTROY PREVIOUS ISSUE	
RELEASED FOR CONSTRUCTION	
ISSUED BY	
DATE	

SCALE	NONE	
DRAWN BY	DRT	9/30/98
CHECKED BY		
APPROVED		

ASARCO Incorporated
EAST HELENA PLANT
EAST HELENA MONTANA, 59635

WATER FLOW DIAGRAM
PLANT WATER BALANCE STUDY
WATER GAINS TO SYSTEM

M.Y. APPROP. NO. | PLANT NO.

ASARCO

DRAWING NUMBER: 80-1-10043 | REV.: 3